

REMARKS

Claims 1-38 are pending in the above-captioned patent application after this amendment. Claims 1-38 have been rejected. The Applicant respectfully traverses the rejection claims 1-38. The Applicant has amended claims 1 and 36 to correct clerical errors for the purpose of expediting the patent application process in a manner consistent with the goals of the Patent Office pursuant to 65 Fed. Reg. 54603 (September 8, 2000), even though the Applicant believes that the previously pending claims were allowable.

Support for the amendments to the claims can be found throughout the originally filed application, including the originally filed claims, the drawings and the specification.

No new matter is believed to have been added by this amendment. Consideration of the pending application is respectfully requested.

Rejections Under 35 U.S.C. § 112

Claims 1-13 and 35-38 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As set forth above, claims 1 and 36 have been amended to correct obvious clerical errors. Therefore, the rejection is believed to have been overcome.

Rejections Under 35 U.S.C. § 102

Claims 1, 10 and 13 are rejected under 35 U.S.C. § 102(b) as being anticipated by Daly (US 5,199,168). Further, claims 1-4, 10 and 26-27 are rejected under 35 U.S.C. §102(b) as being anticipated by Hikita (US 6,427,941).¹ The Applicant respectfully traverses the rejection of claims 1-4, 10, 13 and 26-27 on the grounds that Daly does not teach or suggest the features of the rejected claims, and that Hikita is not prior art relative to the rejected claims, as set forth in greater detail below.

¹ The Applicant respectfully submits that this rejection would more appropriately be made, if at all, under 35 U.S.C. §102(e), and not under 35 U.S.C. §102(b) since the filing date of the instant application predates the issue date of Hikita.

Daly is directed toward a tachometer roller R6 having a single helical thread groove 50. (Col. 4, lines 53-54). The groove 50 is spiral-shaped. (Fig. 3). The groove 50 is angled relative to the circumference of the roller R6 at an oblique angle θ , which causes migration of the resulting damage tracks 124 relative to the longitudinal tracks 78. (Col. 5, lines 3-11; Fig. 6).

In other words, the groove 50 is not parallel to the circumference of the roller. Moreover, the bottom of the groove 50 is necessarily curved to follow the contour of the circumference. Stated another way, Daly does not teach or suggest that the groove 50 is oriented in the direction of the circumference (as evidenced by the “angle θ ” that is required).

As set forth in the specification of the present application, the type of roller taught by Daly can be problematic. More specifically, “attempts to vent the air include providing rollers with continuous grooves that are oriented slightly obliquely or helically to the direction of tape travel. Such rollers have not been entirely satisfactory, however. Specifically, the grooves can cause print through because of the repetitious pattern. Further, the oblique grooves can cause a condition known as ‘directional continuity shift’ or ‘DC shift’. DC shift occurs when orientation of the groove pattern tends to cause the tape to move laterally in one direction, i.e. perpendicular to the direction of the moving tape.” (Specification, page 4, lines 13-20).

Further, Daly does not teach or suggest that the bottom of the groove 50 is substantially linear. Rather, the groove bottom is explicitly curved because the roller is curved and the groove has a uniform depth.

In contrast to Daly, amended claim 1 is directed toward a guide assembly that requires “a rotatable first roller including a perimeter surface, a circumference, a longitudinal axis and a groove disposed into the perimeter surface, the groove having a groove length in a direction substantially along the circumference, and a groove bottom that is substantially linear in a direction along the groove length.” These features are not taught or suggested by the cited references. Thus, Daly would not support a rejection of amended claim 1 under 35 U.S.C. §102(b). The Applicant submits that claim 1 is allowable. Because claims 10 and 13 depend from claim 1, Daly would likewise not

support a rejection of these claims under 35 U.S.C. §102(b), and the rejection under 35 U.S.C. §102(b) of claims 1, 10 and 13 that is based on Daly should be withdrawn.

Additionally, the Applicant respectfully submits that Hikita et al may not be used as prior art in any subsequent office action given the ability of the Applicant to antedate this reference as more fully set forth in the declaration pursuant to 37 CFR §1.131 of inventor, Ken Hanscom, filed concurrently herewith. Because the Applicant submits that Hikita does not specifically claim the features of the rejected claims, a declaration pursuant to 37 CFR § 1.131 is proper.

37 CFR §1.131 provides when "any claim of an application ... is rejected, the inventor of the subject matter of the rejected claim, ... may submit an appropriate oath or declaration to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based. The effective date of a U.S. Patent, ... is the earlier of its publication date or date that it is effective as a reference under 35 U.S.C. §102(e). ... (b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. ...".

As set forth more fully in the accompanying declaration of Ken Hanscom (hereinafter "Declaration of Hanscom") and the attached exhibits, various species of each of the rejected claims were reduced to practice in the United States prior to the earliest effective application filing date of Hikita of October 10, 2000.

More specifically, prior to October 10, 2000, Ken Hanscom reduced to practice in the United States one or more embodiments of each of the following:

(a) A guide assembly for reducing lateral movement of a storage tape in a tape drive, the guide assembly comprising a rotatable first roller including a perimeter surface, a circumference, a longitudinal axis and a groove disposed into the perimeter surface, the groove having a groove length in a direction substantially along the circumference, and a groove bottom that is substantially linear in a direction along the groove length; (Paragraph 2a of the Declaration of Hanscom);

(b) A guide assembly for reducing lateral movement of a magnetic tape in a tape drive, the guide assembly comprising a first roller including a perimeter surface, a circumference, a longitudinal axis and a plurality of discontinuous grooves disposed into the perimeter surface, one of the grooves having a groove depth that varies in a direction along a length of the groove; (Paragraph 2b of the Declaration of Hanscom);

(c) A guide assembly for reducing lateral movement of a magnetic tape of a tape drive, the guide assembly comprising a first roller having a perimeter surface, a circumference and a plurality of spaced-apart discontinuous grooves disposed into the perimeter surface, each groove being positioned substantially parallel to the circumference of the roller, each groove having (i) a groove depth that varies between approximately zero inches and 0.02 inches, (ii) a groove length of between approximately 0.1 inches and 0.3 inches, and (iii) a groove width of between approximately 0.005 inches and 0.015 inches; (Paragraph 2c of the Declaration of Hanscom);

(d) A method of manufacturing a tape roller of a guide assembly for a tape drive, the method comprising the steps of providing a rotatable roller having a circumference and a perimeter surface and forming a groove into the perimeter surface so that the groove is tapered to have a groove depth that varies in a direction along a length of the groove; (Paragraph 2d of the Declaration of Hanscom);

(e) A method of manufacturing a roller for use in a guide assembly of a tape drive, the method comprising the steps of providing a roller portion having a circumference and a perimeter surface and forming a groove into the perimeter surface so that the groove has a groove depth that varies along the length of the groove; (Paragraph 2e of the Declaration of Hanscom);

(f) A method of reducing lateral tape motion of a storage tape adapted for use in a tape drive, the method comprising the step of providing a tape drive having a guide assembly that includes a rotatable first roller having a perimeter surface, a circumference, and a groove disposed into the perimeter surface, the groove having a groove length that is less than the circumference; (Paragraph 2f of the Declaration of Hanscom);

(g) A guide assembly for reducing lateral movement of a storage tape in a tape drive, the guide assembly comprising a first roller including a perimeter surface, a circumference, a longitudinal axis and a groove disposed into the perimeter surface, the groove having a groove length that is less than the circumference, and a groove depth that varies between approximately zero inches and 0.02 inches along the length of the groove; (Paragraph 2g of the Declaration of Hanscom); and

(h) A method of manufacturing a tape drive, the method comprising the step of rotatably mounting a tape roller to a drive housing of the tape drive, the tape roller including a groove having a groove depth that varies over a length of the groove; (Paragraph 2h of the Declaration of Hanscom).

As a result, Hikita may not be used as prior art in any subsequent Office Action in this matter. Moreover, the Applicant respectfully submits that Hikita substantively is not believed to teach or suggest the features of the rejected claims. However, in view of the ability of the Applicants to antedate of Hikita pursuant to 37 CFR 1.131, any substantive arguments regarding why Hikita does not teach the features and/or steps of the rejected claims are believed to be moot. Thus, an explanation of this rationale is limited to what was presented in the applicant's previous Amendment and Response to Office Action. In the event the Declaration pursuant to 37 CFR 1.131 is found for some unforeseen reason by the Patent Office not to be persuasive, the Applicant hereby reserve his rights to substantively traverse the rejected claims in view of Hikita.

Accordingly, the Applicants respectfully submit that the rejection of claims 1-4, 10 and 26-27 by the Patent Office that relies on Hikita should be withdrawn. Further, Hikita should not be used in any subsequent rejection of the claims in this application.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 10, 12-13 and 30-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of Sawano et al. (JP 10-106074). Further, claims 1-4, 10, 12-13, 26-27 and 30-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of Hikita. Additionally, claims 14-15, 20-22, 24, 28-29, 34 and 36-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of Sawano et

al. and further in view of Hikita. Moreover, claims 5-9, 11, 33 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of Sawano et al. as applied to claims 1-4, 10, 12-13, 26-27 and 30-32. Further, claims 16-19, 23 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of Sawano et al. and Hikita as applied to claims 14-15, 20-22, 24, 28-29 and 34. In addition, claims 5-9, 11-12 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hikita as applied to claims 1-4 and 10 or Hikita as applied to claims 1-4, 10, 14-15, 20-21 and 26-27.

The Applicant respectfully traverses the rejection under 35 U.S.C. § 103(a) of claims 1-38 on the grounds that Hikita cannot be used as prior art in this matter (as set forth above), because the cited references, either individually or in combination, do not teach or suggest the features of the rejected claims, and because there is no motivation to combine the references in the manner suggested by the Patent Office.

As set forth above, each of the above rejections under 35 U.S.C. § 103(a) that relies on Hikita should be withdrawn because Hikita may not be used as prior art in this matter. Thus, the rejections of claims 1-4, 10, 12-32, 34 and 36-38 that rely on Hikita should be withdrawn. Consequently, the only rejections that will be substantively addressed will be rejections that do not rely on Hikita, namely, the rejection of claims 1-13, 30-33 and 35.

In addition to the discussion of Daly provided above, the Applicant submits that the roller disclosed in Daly is designed to move the trapped air along the helical "air vent groove" to one of the edges, where the captured air can then escape. "The vent groove terminates in respective circumferential grooves formed in respective edge portions of the roller." (See Abstract). In other words, the continuous helical groove all the way to the edge is what allows Daly to function in the manner disclosed, thereby emitting the trapped air. Daly does not teach or suggest having abbreviated grooves that do not terminate at one of the edge grooves, or that this would even be a prudent idea. In fact, this would defeat the stated purpose of Daly of venting the air to the edges of the roller.

Sawano is directed toward a non-rotating guide pin 1 having crevices 1b in the surface 1a of the guide pin 1. (Figs. 1 and 2). Sawano does not teach or suggest that the bottom of any of the crevices is substantially linear in a direction along the

circumference. In fact, there does not appear to be any discussion of the bottom of the crevices. Therefore, even assuming that there was some suggestion to combine Daly and Sawano, which there is not, the combination does not yield the claimed invention. As set forth above, the bottom of the groove in Daly is explicitly curved.

The requirements of claim 1 are set forth above. The cited combination of references does not teach or suggest the features of claim 1, and therefore does not support a rejection of claim 1. Because claims 2-13 and 35 depend from claim 1, the cited combination of references likewise does not support a rejection of these claims.

In contrast to the cited combination of references, claim 30 requires the step of “providing a tape drive having a guide assembly that includes a rotatable first roller having a perimeter surface, a circumference, and a groove disposed into the perimeter surface, the groove having a groove length that is less than the circumference.” This step is not taught or suggested by the cited references. Therefore, a rejection of claim 30 that is based on the cited references is not supported, and should be withdrawn. Because claims 31-32 depend from claim 30, a rejection of these claims is likewise unsupported, and should be withdrawn.

Further, claim 33 requires “a first roller including a perimeter surface, a circumference, a longitudinal axis and a plurality of spaced apart grooves disposed into the perimeter surface, each of the grooves having a groove length that is less than the circumference and at least one of the grooves having a groove length of between approximately 0.01 inches and 1.5 inches.” These features are not taught or suggested by the cited references. Therefore, a rejection of claim 33 that is based on the cited references is not supported, and should be withdrawn.

Additionally, there is no motivation to combine these references in the manner suggested by the Patent Office. More specifically, there is no motivation to use the features of the guide pin taught by Sawano in Daly’s roller. “The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant’s disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991; Emphasis added). In the present case, neither is found. Daly does not indicate or suggest that having multiple grooves that are less than the length

of the circumference are advantageous or necessary. In fact, including multiple disconnected grooves that do not encircle the roller of Daly would not move the trapped air to the edges of the roller. Thus, there is no clear benefit of adding multiple shorter grooves to the roller of Daly. Stated another way, one skilled in the art reading Daly would not be motivated to add multiple grooves that do not extend around the circumference, or that are not substantially parallel with the circumference because the trapped air would not be moved to the edges where it can escape.

Even if the combination of references taught every element of the claimed invention (which it does not, as explained above), without a motivation to combine, a rejection based on a prima facie case of obviousness has been held improper. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). Further, the “mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990; emphasis original and added).

Moreover, neither of the references teaches that there would be a reasonable expectation of success in combining the roller of Daly with the crevices of Sawano. The apparatus taught by Daly appears to operate only with a continuous helical groove. In other words, it is not obvious how these two devices would be effectively combined. Thus, one skilled in the art would not expect that combining the roller in Daly with the crevice pattern in Sawano would result in a properly working device.

Additionally, the “references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention ...” *Hodosh v. Block Drug Co., Inc.* 786 F.2d 1136, 1143, n. 5, 229 USPQ 182, 187, n. 5 (Fed. Cir. 1986). Moreover, the Federal Circuit has stated, “[i]t is difficult but necessary that the decisionmaker forget what he or she has been taught ... about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). In summary, the motivation to combine the roller in Daly with the

crevices in Sawano can be found only in the teachings of the present application. This constitutes impermissible hindsight, which is to be avoided when applying 35 U.S.C. § 103.

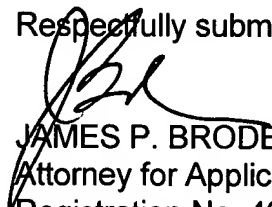
Claim 36 is directed toward a method that requires "rotatably mounting a tape roller to a drive housing of the tape drive, the tape roller including a groove having a groove depth that varies over a length of the groove." This step is not taught or suggested by the cited references, as explained in greater detail above. Therefore, claim 36 is believed to be allowable. Because claims 37-38 depend from claim 36, they are also believed to be allowable.

Conclusion

In conclusion, the Applicant respectfully asserts that the final rejection by the Patent Office is premature and should be withdrawn. Further, the Applicant submits that claims 1-38 are allowable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-487-4077 for any reason that would advance the instant application to issue.

Dated this the 5th day of April, 2007.

Respectfully submitted,


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